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TITLE: Stamina-enhancing drinks and foods -
contain extract
from Crataegus plant, Rosaceae

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The extract is prepared by extracting the plant with water or ethanol and purifying the extract to obtain a low polar fraction. The extract contains at least 1 tannin, such as chlorogenic acid and epicatechin, and flavone glycosides, such as rutin, isoquercitrin and hyperin. The foods and drinks contain at least 1 extract of hydrangia, Zizyphi Fructus, Glycyrrhizae Radix, 'Rakanka' (Chinese herb), Lycium chinense Mill., Solanaceae, Cinnamomi Cortex, Zizyphi Spinosi Semen, Gardeniae Fructus, Coix lacryma-jobi L. var. ma-yuen Stapf, Gramineae, Angelica keiskei Koidz., Umbelliferae, Isodonis Herba, the leaf of Diospyros kaki Thumb., Ebenaceae, 'Soba' (Chinese herb), german chamomile, Aurantii Pericarpium, Sasa albo-marginata and 'Amachazuru' (Cucurbitaceae plant, Chinese herb).

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PAT-NO:

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DOCUMENT-IDENTIFIER:

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TITLE:

AND IMPROVING

AGENT FOR PROMOTING CEREBRAL METABOLISM

CEREBRAL FUNCTION

PUBN-DATE:

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ABSTRACT:

PURPOSE: To provide the subject agent containing a substance having superoxide dismutase-like activity and antioxidation activity, a phenolic compound and a sugar compound, effective for activating the cerebral metabolism to improve the memory and cerebral function, free from side action and useful for the treatment of cerebral and neurologic diseases.

CONSTITUTION: The objective agent is effective for promoting cerebral metabolism and improving cerebral function and activating the

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CLAIMS

[Claim(s)]

[Claim 1] The brain metabolism promotion and the cerebral function improvement medical treatment agent which comes to contain sugar compounds, such as the matter and phenolic compound which have superoxide-dismutase (SOD) Mr. activity and/or anti-oxidization ability (a scavenger function is included) and glycoprotein, and saccharification flavonoid.

[Claim 2] The brain metabolism promotion and the cerebral function improvement medical treatment agent according to claim 1 characterized by being one sort as which the phenolic compound was chosen from groups, such as a guaiacol, a phenol, an eugenol, and phenyl ethanol, or such mixture.

[Claim 3] sugar compounds, such as glycoprotein and saccharification flavonoid, -- asparagus -- the brain metabolism promotion and the cerebral function improvement medical treatment agent according to claim 1 characterized by being one sort chosen from groups, such as tin, cage en tin (RUTEKISHIN), cis-cage en tin (RUTONARECHIN), iso KUERUSHICHIN, and rutin, or such mixture

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] this invention relates to brain excitometabolism and a cerebral function improvement treatment agent.

[0002]

[Description of the Prior Art] Before, urban (Takeda Chemical Industries) as brain excitometabolism and a cerebral function improvement treatment agent, L-dopa, etc. in connection with cerebral functions, such as senile dementia and Parkinson's disease, are known.

[0003]

[Problem(s) to be Solved by the Invention] In the short term, Parkinson's disease improvement treatment agents, such as a senile dementia improvement agent of urban ** or L-dopa, have come [however,] to improve brain metabolism fundamentally, although brain metabolism is promoted. moreover -- as the side effect of an urban ** L-dopa -- nervous system disorder, such as numbness of hand and foot, a vertigo, a feeling of wandering, and headache, and mental disorder, such as excitement, delirium, disquiet, and insomnia, -- further -- a loose passage -- it has diarrhea, and it vomits and the obstacle of digestive systems, such as mind, anorexia, stomachache, and abdomen displeasure, is known

[0004] Moreover, in order the treatment of senile dementia and Parkinson's disease is difficult, and an effect is thin or to require a long time, the thing with sufficient effect was not known.

[0005] this invention has few side effects and it aims at offering the brain excitometabolism agent and cerebral function improvement treatment agent which makes active an aged person's brain metabolism, such as metabolism of neurotransmitter, and a protein metabolism, and improves storage and a cerebral function.

[0006] Then, in order to solve the aforementioned purpose, as a result of repeating research wholeheartedly, this invention persons found out that the constituent containing sugar compounds, such as matter which has the superoxide-dismutase (SOD) Mr. activity and/or antioxidation ability (the scavenger function which catches active oxygen, such as a superoxide radical, is included) which remove active oxygen in the living body, a phenolic compound and glycoprotein, and saccharification flavonoid, was effective in brain excitometabolism and cerebral function improvement treatment without a side effect, and completed this invention.

[0007] Vitamin C, vitamin E, a uric acid, a glutathione, beta carotene, KARATAZE, glutathione par oxine DAZE, etc. are mentioned as what SOD Mr. activity shows what has analogous activity (physiological function) with the SOD activity which changes a superoxide radical into a hydrogen peroxide, and low molecular weight compounds, such as a copper (II) complex of amino acid or a peptide, a manganese complex, a lipophilicity ascorbic acid, a porphyrin metal complex, and a polyamine metal complex, are mentioned as matter which has SOD Mr. activity, and has antioxidation ability.

[0008] As a phenolic compound, one sort chosen from groups, such as a guaiacol, a phenol, an eugenol, and phenyl ethanol, or such mixture are raised.

[0009] as sugar compounds, such as glycoprotein and saccharification flavonoid, -- asparagus -- one sort chosen from groups, such as tin, cage en tin (RUTEKISHIN), cis-cage en tin (RUTONARECHIN), iso KUERUSHICHIN, and rutin, or such mixture are mentioned

[0010] Moreover, this invention is more excellent in an effect, if the mineral which are one sort or such mixture, such as Lynn, iron, calcium, sodium, a potassium, magnesium, copper, zinc, manganese, a quercetin, and a selenium, is mixed.

[0011] Each constituent of this invention was the thing of non-toxicity, and was a thing also corresponding to pharmacology criteria, there is no example of death at the acute toxicity test to a rat, and abnormalities were not accepted in a biochemistry blood test and histopathology-inspection.

[0012] The matter with which this invention has SOD Mr. activity and/or antioxidation ability, saccharification flavonoid, and a phenolic compound, The effect which was excellent for the first time by containing the mineral added if needed is shown. moreover, the composition The potency of SOD Mr. activity and/or antioxidation ability 10,000 to 100,000 unit /g, It is required to carry out 10-500 mg/g content of the sugar compound 2 - 20 mg/g, the protein nature matter 1 - 30 mg/g, and the phenolic compound, when adding 1 - 20% and a mineral.

[0013] It can mix, and the matter which has the SOD Mr. activity and/or antioxidation ability which are used for this invention, a sugar component, and a phenolic compound can also mix and eat [drinking and] to independent medication or other ingesta as it is with arbitrary gestalten, such as the shape of a solution, powder granulatio, a tablet, an emulsion, and

jelly.

[0014] Although it changes with the kind of target disorder, and grades, using in a 2-40mg/kg/day is desirable, and when it uses regularly as a drink, it is desirable [the dose] to drink and that 100ml - 500ml /will eat a solution a day 0.1 to 3.0%.

[0015]

[Function] Although medication of L-dopa etc. is known for the disorder produced by the fall of the amount of dopamine within a brain until now, the side effect of Parkinson's disease is strong. Moreover, although, as for senile dementia, [Translation done.]□ase nature dementia and senile dementia of Alzheimer type are known, especially about the latter dementia, there are many unknown points, such as the cause, and the therapeutic drug is also restricted. The component of the sugar compound which has the matter and antioxidation operation which have the SOD Mr. activity which has a removal operation of active oxygen, such as a superoxide radical, combines, and the constituent of this invention is considered to be based on the increase in the blood stream by vasodilatation, brain excitometabolism, etc.

[0016]

[Effect] this invention makes active brain metabolism of mammalian including Homo sapiens, can improve storage and a cerebral function and can carry out treatment or an improvement for a brain and neuropathy, such as senile dementia and Parkinson's disease, without a side effect. Moreover, since there is no side effect, improvement treatment of the cerebral function can be quickly carried out by recipe by eating and drinking etc.

[0017]

[Example]

Saccharification flavonoid 1 - 50 mg/g, 2 - 20% of protein, and 3 - 15% of phenols were mixed as an example sugar compound of manufacture with-like [solution], and it prepared so that it might become more than potency 20,000 unit / g as SOD Mr. activity and/or antioxidation ability. Distilled water was added to the obtained constituent and the solution which a constituent contains 0.25% was obtained.

[0018] Example 1 [a brain metabolism promotion experiment]

The solution medication group which takes in the solution obtained in the example of manufacture every day to a rat (SD system, male) and which was given instead of water, Divide into the rat (control group) which gave usual water, look like the brain of a rat] the guide cannula for minute dialysis tubes in operation, embed it in it, and a minute dialysis tube is inserted after an operation and 20-hour or more progress. By dialysis, the neuro-transmitter within a brain (neurotransmitter) was taken out, it connected with the high performance chromatography (HPLC), and the situation of brain metabolism promotion was detected by the electrochemical detector. The result is shown in Table 1.

[Table 1]

表 1

	D O P A C	H V A	5 - H I A A
コントロール群	100%	100%	100%
溶液投与群	106	104	143

From Table 1, it became clear by the extract medication group that a dopamine metabolite etc. increases and brain metabolism is promoting.

[0019] Example 2 [an Alzheimer's disease-like improvement experiment]

In the dryness powder (an equivalent for 1g; 3g dryness leaf) which dried with the lyophilizer the extract obtained in the example of manufacture, it is of a poor appetite, he has forgotten the walk, five advanced age state [where it considered as BOTSU] dogs were medicated, and the improvement of a symptom was investigated. The result is shown in Table 2.

[Table 2]

表 2

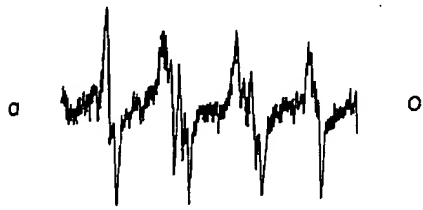
症例数	有効	不変
5	4	1

The energy of four advanced age dogs is recovered after medication and among five animals, appetite also comes out, and it wanted to go [come] to take a walk.

[0020] The solution obtained in the example of example 3 manufacture was used, and active oxygen removal / elimination operation by the addition of the solution in a test tube was investigated. The result is shown in drawing 1 . According to drawing 1 , it turns out that the big thing of the signal (wave) of ESR in a test tube shows existence of active oxygen, and the amount of active oxygen decreases by increasing the addition of a solution.

[0021] Subsequently, the solution obtained in the example of manufacture was given to the rat over eight weeks instead of water, and the amount of active oxygen in a fat tissue was investigated. The result is shown in drawing 2 .

Drawing selection drawing 2 ▼



[Translation done.]